

909.0, and 910.0, no vent pipe shall be used as a soil or waste pipe, nor shall any soil or waste pipe be used as a vent. Also, single-stack drainage and venting systems with unvented branch lines are prohibited.

311.5 No fitting, fixture and piping connection, appliance, device, or method of installation that obstructs or retards the flow of water, wastes, sewage, or air in the drainage or venting systems, in an amount greater than the normal frictional resistance to flow, shall be used unless it is indicated as acceptable in this code or is approved per Section 301.1 of this code. The enlargement of a three (3) inch (80 mm) closet bend or stub to four (4) inches (100 mm) shall not be considered an obstruction.

311.6 Except for necessary valves, where inter-membering or mixing of dissimilar metals occurs, the point of connection shall be confined to exposed or accessible locations.

311.7 All valves, pipes, and fittings shall be installed in correct relationship to the direction of flow.

311.8 Screwed Fittings. Screwed fittings shall be ABS, cast iron, copper, copper alloy, malleable iron, PVC, steel, or other approved materials. Threads shall be tapped out of solid metal or molded in solid ABS or PVC.

311.9 [For OSHPD 1, 2, 3 & 4] - *Drainage piping over operating and delivery rooms, nurseries, food preparation centers, food-serving facilities, food storage areas, and other sensitive areas shall be kept to a minimum and shall not be exposed. Special precautions shall be taken to protect these areas from possible leakage from necessary overhead drainage piping systems. Piping over switchboards, panel boards, and motor control centers are subject to restrictions of the California Electrical Code where applicable.*

311.10 [For OSHPD 1, 3 & 4] *Floor drains shall not be installed in operating and delivery rooms. Floor drains with self-priming traps may be installed in cystoscopic rooms.*

311.11 [For SFM] *For applications listed in Section 111 regulated by the Office of the State Fire Marshal, plastic piping shall not be exposed as a portion of the interior room finish in a building or structure if the piping has a flame-spread rating exceeding 75 when tested in accordance with ASTM E 84-77a, "Test for Surface Burning Characteristics of Building Materials."*

311.12 [For OSHPD 1, 2 & 4] Services/Systems and Utilities. *Refer to Section 1224.4.1, California Building Code.*

312.0 Independent Systems.

The drainage system of each new building and of new work installed in any existing building shall be separate and independent from that of any other

building, and, when available, every building shall have an independent connection with a public or private sewer.

Exception: Where one building stands in the rear of another building on an interior lot, and no private sewer is available or can be constructed to the rear building through an adjoining court, yard, or driveway, the building drain from the front building may be extended to the rear building.

313.0 Protection of Piping, Materials, and Structures.

313.1 All piping passing under or through walls shall be protected from breakage. All piping passing through or under cinders or other corrosive materials shall be protected from external corrosion in an approved manner. Approved provisions shall be made for expansion of hot water piping. Voids around piping passing through concrete floors on the ground shall be appropriately sealed.

313.2 All piping in connection with a plumbing system shall be so installed that piping or connections will not be subject to undue strains or stresses, and provisions shall be made for expansion, contraction, and structural settlement. No plumbing piping shall be directly embedded in concrete or masonry. No structural member shall be seriously weakened or impaired by cutting, notching, or otherwise, as defined in the Building Code.

313.3 All trenches deeper than the footing of any building or structure and paralleling the same shall be at least forty-five (45) degrees (0.79 rad) therefrom, or as approved per Section 301.1 of this code.

313.4 No building sewer or other drainage piping or part thereof, constructed of materials other than those approved for use under or within a building, shall be installed under or within two (2) feet (610 mm) of any building or structure, or less than one (1) foot (305 mm) below the surface of the ground.

313.5 Piping subject to corrosion, erosion, or mechanical damage shall be protected in an approved manner.

313.6 No water, soil, or waste pipe shall be installed or permitted outside of a building or in an exterior wall unless, where necessary, adequate provision is made to protect such pipe from freezing.

313.7 All piping penetrations of fire-resistance-rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the Building Code, IAPMO Installation Standards, and Chapter 15, "Firestop Protection."